(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 28 October 2004 (28.10.2004)

PCT

(10) International Publication Number WO 2004/091888 A1

(51) International Patent Classification7:

B29C 47/04

(74) Agent: SCHWANDER, Kuno, Josef; Roche Vitamins Ltd., Wurmisweg 576, CH-4303 Kaiseraugst (CH).

(21) International Application Number:

PCT/EP2004/003647

(22) International Filing Date: 6 April 2004 (06.04.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 03008638.3

15 April 2003 (15.04.2003)

(71) Applicant (for all designated States except US): DSM IP ASSETS B.V. [NL/NL]; Het Overloon 1, NL-6411 TE Heerlen (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BRUGGER, Roland [DE/DE]; Egonstrasse 21, 79106 Freiburg (DE). GADI-ENT, Martin [CH/CH]; Delsbergerallee 29, CH-4053 Basel (CH). GUGGENBUHL, Patrick [FR/FR]; 15, rue des Marronniers, F-68127 Sainte-Croix-en-Plaine (FR). SIMOES-NUÑES, Carlos [FR/FR]; 10, rue de la Liberté, F-68128 Village-Neuf (FR). VIGNUDELLI, Bernd [DE/DE]; Vogteistrasse 24, D-79618 Rheinfelden (DE). NEUPERT, Werner [DE/DE]; Kolpingweg 13, 91056 Erlangen (DE).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
- KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FEED SUPPLEMENT COMPOSITIONS

(57) Abstract: A process for the preparation of thermostable, discrete, solid particles containing lactoferrin embedded in a proteinand/or starch-based carrier matrix by mixing the carrier matrix, lactoferrin and an optional internal lubricant in a horizontal screw extruder, extruding and cutting said mixture into pieces and optionally drying said pieces as well as their use as food or animal feed supplements.

